

**Trade and Industrial Education**  
**Course: Theory of Flight**  
**Course Code # 5720**  
**1 Credit**

**School Year** \_\_\_\_\_

**Term:** \_\_\_\_ **Fall** \_\_\_\_ **Spring**

|   |         |
|---|---------|
| Student:                                    | Grade:  |
| Teacher:                                    | School: |
| Number of Competencies in Course: <b>35</b> |         |
| Number of Competencies Mastered:            |         |
| Percent of Competencies Mastered:           |         |

**STANDARD 1.0: Students will demonstrate leadership, citizenship, and teamwork skills required for success in the school, community, and workplace.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 1.1                   | Lead a team.   |   |         |             |
| 1.2                   | Participate in SkillsUSA-VICA as an integral part of classroom instruction.                                  |   |         |             |
| 1.3                   | Assess client complaint and apply problem-solving and decision-making skills to communicate with the client. |   |         |             |
| 1.4                   | Demonstrate teamwork skills.   |   |         |             |

**STANDARD 2.0: Students will analyze the flight environment and its relationship to safety.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 2.1                   | Analyze important safety considerations for flight and ground operations.          |   |         |             |
| 2.2                   | Differentiate between controlled and uncontrolled airports and their environments. |   |         |             |
| 2.3                   | Interpret aeronautical charts.   |   |         |             |
| 2.4                   | Differentiate between controlled and uncontrolled airspace.                        |   |         |             |

**STANDARD 3.0: Students will assess communication and flight information systems.**

| Learning Expectations |   | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|---|---|---------|-------------|
| 3.1                   | Explore radar, transponder operations, and FAA radar equipment and services for visual flight rules (VFR) aircraft. |   |         |             |
| 3.2                   | Examine radio equipment and procedures.   |   |         |             |
| 3.3                   | Access sources of flight information.   |   |         |             |

**STANDARD 4.0: Students will analyze weather formation and hazards to aircraft operations and interpret weather data.**

| Learning Expectations |   | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|---|---|---------|-------------|
| 4.1                   | Examine basic weather theory and causes of various weather conditions, frontal systems and hazardous weather phenomena. |   |         |             |
| 4.2                   | Explain how to recognize critical weather situations from the ground and during flight.                                 |   |         |             |
| 4.3                   | Distinguish sources of weather information during preflight planning and while in flight.                               |   |         |             |

**STANDARD 5.0: Students will demonstrate comprehension of Federal Aviation Regulations that apply to private pilot operations.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 5.1                   | Examine private pilot privileges and limitations.  |   |         |             |
| 5.2                   | Evaluate National Transportation Safety Board (NTSB) accident reporting requirements and advisory circulars. |   |         |             |

**STANDARD 6.0: Students will examine principles of aerodynamics used to predict aircraft performance and weight and balance**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 6.1                   | Explore the effects of varying conditions on airplane performance. |   |         |             |
| 6.2                   | Use relevant data to predict airplane performance.                 |   |         |             |
| 6.3                   | Apply mathematical concepts to weight and balance.                 |   |         |             |

**STANDARD 7.0: Students will examine the various types of navigation in pilotage and dead reckoning.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 7.1                   | Analyze navigation by pilotage.                                    |   |         |             |
| 7.2                   | Analyze navigation by dead reckoning.                              |   |         |             |
| 7.3                   | Examine the Very High Frequency OmniRange Navigation System (VOR). |   |         |             |
| 7.4                   | Examine the use of ADF navigation equipment.                       |   |         |             |

**STANDARD 8.0: Students will analyze human factor principles and identify their effect on aviation physiology and aeronautical decision making.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 8.1                   | Explore the factors that affect aeronautical decision making.  |   |         |             |
| 8.2                   | Explore techniques for enhancing safety in the cockpit by improving pilot judgment and decision making skills. |   |         |             |

**STANDARD 9.0: Students will examine cross-country flying.**

| Learning Expectations |   | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|---|---|---------|-------------|
| 9.1                   | Follow recommended procedures and guidelines for flight planning. |   |         |             |
| 9.2                   | Perform mathematical computations for flight.                     |   |         |             |

**STANDARD 10.0: Students will demonstrate communication skills required in the aviation industry.**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 10.1                  | Communicate and comprehend oral and written information typically occurring in the aviation workplace and in flight. |   |         |             |
| 10.2                  | Solve problems and make decisions using a logical process.   |   |         |             |
| 10.3                  | Use teamwork skills to accomplish goals, solve problems, and manage conflict within groups.                          |   |         |             |

**STANDARD 11.0: Students will demonstrate interpersonal and employability skills required in the aviation industry**

| Learning Expectations |  | Check the appropriate Mastery or Non-Mastery column | Mastery | Non-Mastery |
|-----------------------|--|---|---------|-------------|
| 11.1                  | Infer relationships between honesty, integrity, and organization and personal job success.         |   |         |             |
| 11.2                  | Demonstrate attitudes conducive to workplace success.  |   |         |             |
| 11.3                  | Assess implications of cultural and religious diversity for classroom and workplace relationships. |   |         |             |

Additional Comments \_\_\_\_\_